

Hazard Control Plan

Title: Waste Management Activities

Identifying Number: P-FM-HCP-005-2001.1

Initial Risk Estimate: Medium

Residual Risk: Low

Work Permits: N/A

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Work Authorization:

David Riker/ Facility Manager _____
Name/Title **Signature** **Date**

Periodic Review Schedule: Every 3 years or as modification is necessary through feedback or activity change.

Revision Record: Reviewed and Revised 4/1/01. Minor editorial changes and reference updates only.

SCOPE:

This Hazard Control Plan applies to all P-FM personnel who will generate waste or perform waste management activities as defined in LIR 404-00-03 (Hazardous and Mixed Waste Requirements for Generators) and as defined in LS 105-01 (Waste Management Coordinator Program). The plan applies to all P-FM employees that generate or manage chemical and/or radioactive wastes.

DESCRIPTION OF OPERATION:

Waste management activities throughout FMU 77. The general activity applies to generation, identification, characterization, segregation, inspections and disposal of waste material to include safe & proper handling of facility and programmatic waste. Facility waste may be generated during facility equipment maintenance and construction projects. This hazard control plan also applies to the storage of hazardous or radioactive waste in approved storage area(s).

MATERIAL AND EQUIPMENT:

- Appropriate Personal Protective Equipment (PPE)
- Cart or shelves for storage
- Secondary containment for liquids
- Spill Control Equipment
- Hazardous and Mixed Waste Facility Inspection Record Form
- Waste Profile Form
- Chemical Waste Disposal Request
- Emergency Response Equipment
- Field Screening/Sampling Equipment
- Fire protection equipment
- Packaging containers
- RCRA inspection forms
- <90 day inspection form
- Drum handling equipment

LANL AND REGULATORY REQUIREMENTS

- LIR 300-00-01.2 Safe Work Practices
- LIR 300-00-02.2 Documentation of Safe Work Practices
- LIR 402-702-01.1 ALARA
- LIR 402-100-02.0 Hazardous Waste Operations and Emergency Response Training Requirements
- LIR 402-510-01 Chemical Management
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- LIR 402-700-01.0 Occupational Radiation Protection Requirements
- LIR 404-00-03.1 Hazardous and Mixed Waste Requirements for Generators
- LIR 404-00-02.3 General Waste Management Requirements

- LIR 404-00-04.1 Managing Solid Waste
- LIR 404-00-05.2 Managing Radioactive Waste
- LIR 404-00-06.1 Managing Polychlorinated Biphenyls
- LIR 405-10-01.1 Packaging and Transportation
- LIR 402-1000-01.0 Personal Protective Equipment
- LIR402-10-03.0 ES&H Management of Contractor Performed Facility Construction/Maintenance, Environmental Restoration/Decontamination and Decommissioning, and Related Drilling Operations
- LIR 402-515-01.0 Chemical Management
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- LIG 404-00-02.0 Acceptable Knowledge
- LIG 404-00-03.0 Waste Profile Form Guidance
- LS 105-01 Waste Management Coordinator Program
- 40 CFR 260 RCRA regulations
- 49 CFR 101 DOT regulations
- 29 CFR 1910 OSHA regulations
- 20 NMAC 9.2.5.105BV New Mexico Solid Waste Act
- Plan-Wastemanagement-002 LANL Waste Acceptance Criteria

EMERGENCY ACTIONS:

FMU 77 ES&H Team members must be familiar with emergency signals, procedures, and emergency equipment (pull boxes, etc.) for the facility, building, area, or operation where work is performed. Emergency contacts and numbers should be posted on doors. Personnel should be knowledgeable of muster areas designated for the site being evaluated. Call 911 for immediate crisis/fire/medical assistance.

Spills: Spill control materials appropriate in type and quantity must be available at the storage area in accordance with the LANL Spill Prevention, Control, and Countermeasures Plan (SPCC) and LANL waste management requirements. P-FM personnel will not attempt cleanup of spills of unknown materials. Minor spill control of known materials is permitted, however the work activity must be evaluated utilizing the 5 Step ISM Process.

“In the event of an emergency, remember that your first responsibility is for your own safety. Do not try to perform any shutdown procedures if it would mean compromising your safety.”

WASTE DISPOSAL:

Hazardous, non-hazardous, mixed, and radioactive waste are disposed utilizing LANL procedures. FWO-SWO manages LANL's treatment, storage & disposal facility and is responsible for the packaging and transportation of the waste from the area of generation. Recyclable materials will be managed through the environmental stewardship office or JCNM processes.

WORK ACTIVITIES/HAZARDS/CONTROLS

Activity	Hazard	Control
General Site Hazards	General Exposure to hazardous and radioactive materials/conditions	Contact Site/Area Supervisor to be briefed on site conditions, procedures and/or requirements.
General Waste Managment	Exposure to hazards by tenants/adjacent workers, personnel or public.	<p>Wear safety glasses with side shields at all times. Post, confine & isolate the work area with caution tape or barricades. Use administrative controls such as locking doors. Gather MSDS information and appropriately containerize and segregate material.</p> <ul style="list-style-type: none"> All hazardous chemicals should be appropriately marked. Refer to the Chemical Management LIR 402-510-01.0 Attachment 4 for additional labeling requirements for Hazard Communication. Immediately replace manufacturer's labels that have been removed or defaced. Ensure labels remain legible and displayed in a prominent place. Label secondary containers as required, unless they are used immediately by the employee performing the transfer. Change label to reflect new hazard data, if the data are available to the owner. MSDSs are available from the manufacturer or online at http://www.esh.lanl.gov/~esh5/ Non-routine tasks involving chemicals should be reviewed by a member of the ESH team prior to starting work.
	Fire hazard: general	Ensure adequate ABC fire extinguishers are on site. Become familiar with egress routes and muster areas for the building. Store flammable or combustible materials properly. Keep work area clean and orderly at all times. Prohibit all sources of ignition.
Opening containers/drums/boxes	Possible pressure release.	Open containers/drums slowly to release potential pressurization. Position container or body such that accidental release will be expelled away from personnel.
	Contact with sharp edges: cuts and abrasions, razor blade or utility knife use; Contact with sharp edges: Glass/Cuts and Abrasions	Cover sharp edges with duct tape. Ensure all exposed sharps and protrusions are protected from accidental contact. Use caution when trimming with razor blade. Keep fingers well away from the path of possible travel. Cut <i>away</i> rather than <i>towards</i> you r body.. Wear cut resistant (e.g., leather or kevlar) gloves abd long sleeves. Wear leather gloves when removing the glass. Tape the glass to prevent shattering.
Waste Characterization	General Sampling Hazards	See P-FM-HCP-017-00.0 Environmental, Safety, and Health Evaluations, Inspections, and Sampling.
Waste Handling	Improper lifting	Use proper lifting techniques: do not twist while lifting, lift a maximum of 50 lb. per person. Use additional personnel or mechanical means for loads greater than 50 lbs.

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	Ingestion of chemicals: general	Prohibit eating, drinking, smoking, applying cosmetics & handling contact lenses in work area.
	Inhalation of chemicals: general	Use engineering controls, e.g. ventilation, to reduce exposure to gases, vapors, particulates. Contact ES&H/IH SME for monitoring, ventilation & PPE requirements
Transferring and bulking liquids	Inhalation of vapors	Implement engineering controls to reduce potential chemical exposures. Follow specific materials MSDS procedures & PPE guidance
	Splash of liquid	Wear face shield and apron when handling liquid chemicals.
	Ignition of flammable vapors/liquids by static spark or other sources of ignition.	Use proper grounding techniques prior to transfer. The containers must be bonded together with a bonding wire. Transfer must be done in an area free of ignition sources.
Transporting or moving drums and packaging materials	Pinch points Lifting Awkward loads and movements Crushing of toes, feet, fingers, and feet	Wear leather gloves and steel-toed boots. Secure load using straps, ropes, or blocking and bracing techniques. Only transport EMPTY containers. Use proper lifting techniques, get assistance from another person or use mechanical means. Maintain constant contact with drums to prevent rollaways during loading, unloading, or moving. Do not overload truck, minimize loads.
Radiological waste management	Exposure to ionizing radiation: general	Be aware of and obey radiological postings, labels & lights in area. Contact ES&H/HP SME for procedural requirements and to evaluate necessity of RWP. Follow controls in RWP (if applicable). Contact RCT prior to and after work. Radiological work permit required for intrusive work.
Chemical waste management	Contact (skin) with chemical: general Inhalation, absorption, ingestion, and injection	Wear appropriate PPE (eye protection, gloves, clothing & respirator) as necessary. Follow MSDS procedures & PPE guidance associated with specific materials. If uncertain, contact ES&H/IH SME for PPE and procedural requirements.
Corrosive/Caustic waste management	Contact (skin or eye) with corrosive or caustic materials	Do not store corrosives/caustics above chin level. Follow MSDS procedures & PPE guidance associated with specific materials. Wear protective eyewear during all work activities.
Mixed waste management	Inhalation, absorption, ingestion or injection of chemicals when radiological hazard is present.	Be aware of and obey radiological postings, labels & lights in area. Contact ES&H/HP SME for PPE and procedural requirements and to evaluate the necessity of RWP. Follow controls in RWP, if applicable. Wear appropriate PPE during all activities in accordance with RWP.
Cryogenic waste management	Contact (skin or eyes) with cryogenics/over-pressurization or release	Wear appropriate PPE. Provide pressure relief for cryogenic storage vessels. Cryogen safety training.
Reactive waste management	Contact with reactive metals: lithium and sodium	Store lithium and sodium under mineral oil or other suitable hydrocarbon. Follow MSDS procedures & PPE guidance associated with specific materials. If uncertain, contact your ES&H/IH SME for PPE and procedural requirements.
Shock sensitive waste management	Contact with shock sensitive material	Store shock-sensitive materials in a cool, dry area. DO NOT ATTEMPT TO MOVE IF UNSTABLE OR CRYSTALS ARE PRESENT

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Isocyanate waste management	Exposure to isocyanates	Implement necessary engineering controls to reduce potential chemical exposures. Follow MSDS procedures & PPE guidance associated with specific materials.
Oxidizer waste management	Exposure to oxidizers	Store oxidizing agents in glass or other inert containers. Do not store oxidizing agents with reducing agents, corrosive material or flammable material.
Administrative waste management	Exposure to refuse/administrative waste	Wear leather gloves while handling refuse. Communicate effectively with your helper when loading the dumpster. Wear eye protection, to prevent dusts from entering eyes.
Radioactive sources	Exposure to radioactive sources	Contact ES&H/HP SME for evaluation of material and handling procedures.
Flammable waste management	Ignition of flammable/combustibles	Properly store flammable or combustible materials. Smoking or other sources of ignition are prohibited in the vicinity of activities that constitute a fire hazard. Fire extinguisher will be at the job site at all times.
Peroxide forming waste management	Inhalation of ethers and other peroxide-forming chemicals	Ether and other peroxide-forming chemicals should be identified & labeled. Ethers should be stored in amber bottles or other opaque containers. Follow MSDS procedures & PPE guidance associated with specific materials. DO NOT MOVE IF UNSTABLE OR CRYSTALS ARE PRESENT
Lead waste management	Inhalation/Ingestion of lead	Use engineering & work-practice controls, e.g., ventilation, to reduce exposure to gases, vapors, and particulates. Wear gloves when handling lead & wash hands when work is complete. Contact ES&H/IH SME for monitoring, ventilation and PPE requirements. Lead Awareness Training.
Mercury waste management	Inhalation of mercury vapor	Rubber Gloves, Splash Apron and a face shield will be used while handling Mercury-containing compounds. Contact ES&H/IH SME for monitoring, ventilation and PPE requirements.
General Site Biological	Rodents –Hantavirus or Plague exposure. Snakes, scorpions, insect bites, etc.	Use caution when entering dark places. Do not reach into or around blind or dark spaces. If rodent droppings are present, do not disturb. Notify rodent control for cleanup. Ensure proper training and awareness. Contact ES&H/IH SME for questions & guidance.

KNOWLEDGE, SKILLS, ABILITIES AND TRAINING REQUIREMENTS:

P-FM employees must read and sign this HCP before performing the applicable activities.

Waste generators must meet the LANL training requirements under LIR404-00-03 and LIR404-00-01 before the generation of waste.

Waste Management Coordinators must meet the training requirements established for the LANL WMC Program.

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Hazard Communication. A live and a self-study course is available from the ES&H Training Group (ESH-13), White Rock Training Center. Hazard Communication is given during General Employee Training (GET) and whenever new hazards are introduced

Work Acknowledgement:

I have read and understand this Hazard Control Plan:

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